IN THE SPECIFICATION:

Please amend the following paragraphs as indicated:

[0005] The invention provides a method for determining a rate of rain falling on a surface. As rain falls and strikes the surface, the surface vibrates. The method includes the step of sensing the vibrations of the surface. A vibration signal is generated, the vibration signal being proportional to the vibrations of the surface. The vibration signal includes peaks. The method also includes the step of determining the peaks of the vibration signal. ~~Time intervals~~ Intervals of time between the peaks are then determined. Using the ~~time~~ intervals of time, a number n_1 of ~~time~~ intervals of time that occur between a first time and a second time are counted. The number n_1 of ~~time~~ intervals of time falls within a first range. A number n_2 of ~~time~~ intervals of time that occur between the second time and a third time are also counted. The number n_2 of ~~time~~ intervals of time falls within a second range. The rain rate λ is then determined using an equation that is derived from a point process equation and utilizing n_1 and n_2.

[0012] The method also includes the step 16 of determining the peaks of the vibration signal and the step 18 of determining ~~time~~ intervals of time between the peaks. It is preferred that these steps are performed by a microprocessor that is operatively connected to the piezoelectric vibration sensor. However, those skilled in the art will appreciate that other devices, including but not limited to microcontrollers, application specific integrated circuits, and analog circuits, are capable of performing these steps.

[0013] The method continues with the step 20 of counting a number n1 of ~~time~~ intervals of time that occur between a first time and a second time and that fall in a first range of the ~~time~~ intervals of time. In the next step 22, the method counts a number n2 of ~~time~~ intervals of time that occur between the second time and a third time and that fall in a second range of the ~~time~~ intervals of time. Those skilled in the art will

appreciate that the first and second ranges are also known as "statistical bins", or simply "bins".

[0023] The equation for the rain rate listed above used functions that are continuous over time. The microprocessor of the preferred embodiment utilizes discrete values to find the rain rate λ. Therefore, the equation is rewritten $\lambda = -\frac{f'(m)}{f(m)}$, where m represents the ranges, or statistical bins, of ~~time~~ intervals <u>of time</u> that are used to discretely approximate f(t) and f'(t).

[0025] The first alternative embodiment for solving for the rain rate λ can be summarized as follows. First is the step 46 of maintaining the first range and the second range of ~~time~~ intervals <u>of time</u> equal in a time span w. All statistical bins must have the same size with respect to time. Next, the step 48 of determining an intermediate rain rate λ_{int} with an equation $\lambda_{int} = -\frac{2}{w}\frac{n_2 - n_1}{n_2 + n_1}$ is performed. The method of the first alternative embodiment continues with the step 50 of successively determining the intermediate rain rate λ_{int}. For example, in a first iteration a first and a second bin are used to determine the intermediate rain rate λ_{int}. In a second ~~interation~~ <u>iteration</u>, the second bin and a third bin are used to determine another intermediate rain rate λ_{int}, and so on. Finally, the intermediate rain rates λ_{int} are averaged together to determine the rain rate λ in the concluding step 52.

[0026] A second alternative embodiment involves solving for the rain rate λ by using an approximation with only two statistical bins. The first range of the time intervals is defined as all ~~time~~ intervals <u>of time</u> less than or equal to the second time. The second range of the ~~time~~ intervals <u>of time</u> is further defined as all ~~time~~ intervals <u>of time</u> greater than the second time.

[0029] A third alternative embodiment also involves solving for the rain rate λ using only two statistical bins. However, an equation of the third alternative

embodiment will provide a more accurate determination of the rain rate λ than the equation of the second alternative embodiment. The first range of the ~~time~~ intervals of time is defined as all ~~time~~ intervals of time less than or equal to the second time. The second range of the ~~time~~ intervals of time is further defined as all ~~time~~ intervals of time greater than the second time.